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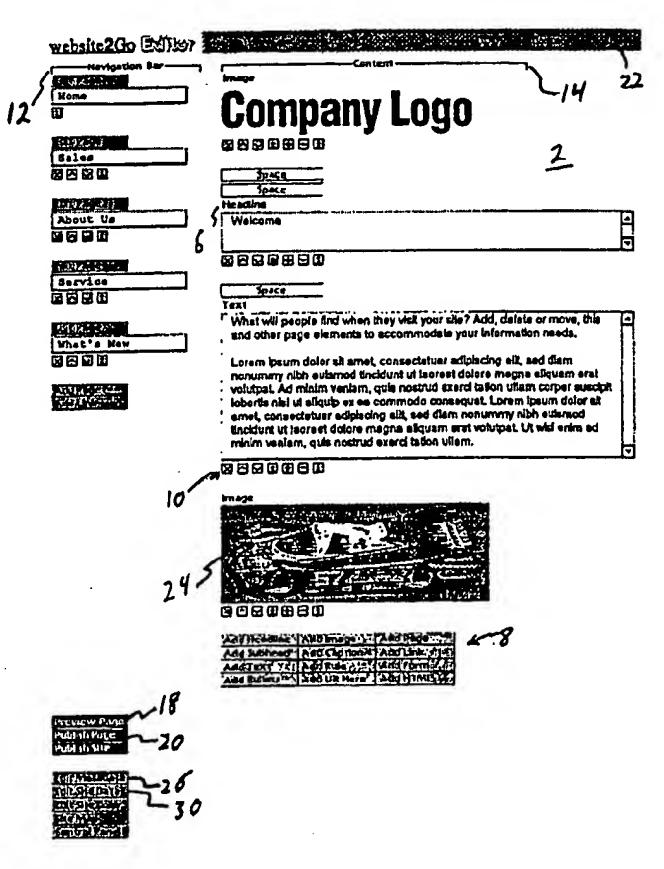
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(54) Title: SYSTEM FOR CREATING WEB SITES USING BROWSER

(57) Abstract

A web site development software program provides an editor for modifying templates for each type of element that can be added to published web pages. The template includes various content areas, such as navbar, main content, and sidebar. The location of content areas in the template being edited are the same as the locations of these areas in the published page. Modification of the template defines a unique name for each element added to the content areas, and unique identifier for the element. The hierarchy of page elements that are added is tracked automatically, and an auto-navigation element is generated for each page to allow for simple linked navigation of the web site. The template determines which content areas can contain each type of element, based on size, for example. All text elements can be edited in the editor. All form images such as buttons to add new elements and buttons to act on existing elements are live such that, when clicked, result in immediate updates to the page and database. Button palettes of available elements and available editing functions are provided. From the editor, each page can be previewed exactly as it will appear without impacting the live site. Each web page, or all web pages at once, can be published to the live web site directly from the editor.



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SYSTEM FOR CREATING WEB SITES USING BROWSER

This application claims the benefit of U.S. Provisional Application Serial No. 60/126,013 filed March 24, 1999.

BACKGROUND OF THE INVENTION

The present invention relates to systems for creating Web sites using an Internet browser and pre-defined templates. More specifically, the present invention relates to an editing system for web site development that is accessible over the Internet using a web browser for modifying pre-defined templates stored in a database to create individual web sites.

SUMMARY OF THE INVENTION

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The present invention provides a development software program that includes a template for each type of element that can be added to pages of a network site, such as a site associated with a URL on the World Wide Web. The templates have content areas and define a unique name for the element and a unique identifier for the element. Pre-defined content areas on each page of the web site can contain each type of element.

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The invention provides various useful features, including a live WYSIWYG ("what you see is what you get") editor. Modular code design of the invention is reusable, extensible, and has faster execution. The editor preferably is integrated with an SQL database and with web site control panels. The invention provides secure access for editing, and allows a user to build multi-level web sites having unlimited depth. Automatic "You are here" navigation is provided. META data entry per web page is also featured. A mini logo optionally is displayed on all pages (can be turned off per page), and a page

header optionally is displayed on all pages (can be turned off per page). A navigation bar allows for easy top level navigation.

User-selectable appearance schemes that ensure color coordination are provided. Automatic resizing of uploaded images to fit column width is available. Live edit of all page elements is featured. Users can easily add various page elements to different content areas by selecting from palettes of available elements. Content grids allow for standard page looks, but can be modified. Templates afford ease of getting started. Context sensitive help is tied to each element type.

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A preview mode allows the user to see changes exactly as they will appear before committing to publication on the Internet. One or all pages can be published to generate actual HTML pages with working links. Action palettes provide buttons for executing available editing functions. For example, easy up/down sorting of elements is provided using arrow icons. In addition, simple add/remove of vertical spacing between elements is provided by +/- icons.

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Other features and advantages of the present invention will become apparent from the following description of the invention which refers to the accompanying drawings.

BRIEF DESCRIPTION OF THE PREFERRED EMBODIMENTS

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Fig. 1 illustrates a screen shot of an edit page from a web site development site according to the present invention.

Fig. 2 illustrates a screen shot of a published version of the edited page shown in Fig. 1.

Fig. 3 illustrates a screen shot of an alternative Edit page according to the present invention.

Fig. 4 illustrates a screen shot of a color scheme editing page according to the present invention.

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- Fig. 5 illustrates a screen shot of an Add Image page according to the present invention.
- Fig. 6 illustrates a screen shot of an Edit Metadata page according to the present invention.
- Fig. 7 illustrates a screen shot of an Edit Site Data page according to the present invention.
 - Fig. 8 illustrates a screen shot of a web site listing pages of a web site development site according to the present invention.
- Fig. 9 illustrates a screen shot of a published version of a People Overview page hyperlinked from the page of Fig. 1 according to the present invention.
 - Fig. 10 illustrates a screen shot of a published version of a Manager page hyperlinked from the page of Fig. 9 according to the present invention.
- Figs. 11-12 illustrate a block diagram for Edit Page functions of the present invention.
 - Fig. 13 illustrates a block diagram for Edit Navbar functions of the present invention.
 - Fig. 14 illustrates a block diagram for Adding Elements functions of the present invention.
 - Fig. 15 illustrates a block diagram for You Are Here functions of the present invention.
 - Fig. 16 illustrates a block diagram for Display Elements For Edit functions of the present invention.
- Fig. 17 illustrates a block diagram for Display Action Palette function of the present invention.
 - Fig. 18 illustrates a block diagram for Display Element Palette functions of the present invention.

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Fig. 19 illustrates a block diagram for Build Page functions of the present invention.

Fig. 20 illustrates a block diagram for Display Image Elements function of the present invention.

Fig. 21 illustrates a block diagram for Site Map functions of the present invention.

Fig. 22 illustrates a block diagram for Update Page functions of the present invention.

Fig. 23 illustrates a block diagram for Update Navbar functions of the present invention.

Fig. 24 illustrates a block diagram for Update Elements functions of the present invention.

Fig. 25 illustrates a block diagram for Dispatch functions of the present invention.

15 DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

1. General Description

The present invention provides on-line Internet users with a system accessed through a browser running on a computer workstation by which the user can easily create a complex, multi-layered web site. The system can be combined with web hosting and offers a suite of web tools including a unique "wysiwyg" editor. The service can be provided, for example, on a subscription basis.

Through the use of a series of templates, which have been created for the user to choose from, the user can build a web site in minutes by pointing and clicking to customize the templates and generate a unique web site. The templates obviate the need for the user to know any programming language such as HTML, CGI, Perl scripting, etc.

The system consists of a dynamic platform which includes sitebuilding mechanisms that have been integrated into existing templates housed on

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a database served by a UNIX server. The end user, such as a corporation or a single individual, accesses the system by paying a monthly fee, for example, for the hosting and building of the site.

An array of pre-designed templates with different colors, type styles and other options to choose from are available for the user to build the site. Personal preference for design configurations drive decisions as to which features to choose, as opposed to having to have a knowledge of how to build web sites. Virtually no knowledge of web site building requirements is necessary. The user need only know the English language, for example, be able to type, or alternatively, access images, from a hard drive and already have knowledge of how to use a computer.

2. Mode of Operation

The invention provides an on-line service a user accesses by paying a monthly fee, for example. Once signed up, the user can access the system as an integrated package using an Internet browser. The package includes a suite of web-building and web-maintenance tools as well as web hosting. For retail applications, a web shopping development suite is used to add product descriptions and shopping cart access to the web site. According to an alternative embodiment, the system is packaged as a software program that is purchased "off-the-shelf" by the user.

Preferably, the system will reside on a server, such as a Unix system, for example, as a "front end" of the custom scripts that manage the data in the database. While the custom scripts are written, for example, in CGI (Common Gateway Interface), a protocol that defines how web servers execute and exchange data with external programs, they are uniquely created in the present invention because they are truly "wysiwyg."

3. The process

The following features are provided in the system of the present invention:

WYSIWYG editing capability

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This feature means that different functionalities are literally "embedded" in specific locations on the "editing" page so that the editing page "looks" exactly like the page that the user is building. See Figs. 1 and 2, for example. The functionality is controlled by different custom designed scripts that work together in such a way that the user produces an integrated final product (i.e., a new page). Advantageously, the user need not constantly go back and forth between the "editing function" and the page that she is building to see the results. This avoids using tedious "trial and error" to finally produce a page. As a result, with the wysiwyg editing tool of the present invention, when the user selects a new headline, for example, that headline is typed into a specific place on the editing page template; and when the user selects "publish," that same headline is in the exact place on the new page that it was on the editing function page.

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Auto-navigation building system.

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Tools of the present invention allow the user to build multiple pages automatically (on the "fly") without the need for the user to name each page. When a page is to be added anywhere to any section, thereby creating subsections, the user merely clicks on "Add Page." The system automatically adds a page to the web site, assigns a unique identifier to the page, and keeps track of the page with "you are here" information that indicates the relationship of the page to its parent page(s). This information automatically is added to the page as a page element, preferably just below the page header, to provide a dynamic linking system for navigating the web site. Thus, an infinite number of subsets, and pages to these subsets, may be created, without the need for the user to identify or keep track of the page being generated. Additionally, the user always

knows where she is anywhere in this process. Consequently, the invention combines a "you are here" concept with a multiple level navigational building tool in a unique, user-friendly way.

Unlimited building tool.

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Because of the first two features, there is no limit to the size of the site that can be built. Accordingly, it is practical for a large corporate entity to use without limitation. However, the present invention can be used by single individuals or huge corporations. Larger sites merely require more throughput, and thus possibly would be charged more for hosting, for example.

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The following are terms commonly used in the present system:

Relational data

All data preferably is stored in an SQL relational database for fast, efficient storage and retrieval. This modular approach facilitates both backward compatibility and future enhancements. SQL standards ensure long term availability and a wide variety of vendors for the underlying database engine.

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Element

Each web page will consist of one or more elements, such as a headline, block of text, image, or link to another site. Elements currently implemented include:

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- Bullets
- Caption
- Form
- Generic
- Headline
 - HTML

- Image
- Link
- Mini Logo
- Product Descriptor/Graphic
- Rule
- Shopping Cart

- Subhead
- Text
- Thumbnail Graphic
- You Are Here

5 <u>Element Template</u>

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For each type of element that can be added to web pages, there is a template which defines the unique name for the element, a unique identifier for the element, and which content areas of web pages can contain each type of element. Some elements are too big or the sidebar, for instance. The identifier of a template/element is used by the edit and build scripts to determine how to display as well as store the data. Some elements have special data storage needs and even separate data tables.

Modular Elements

New elements can be integrated to add functionality to the system.

Unique software can be readily added for displaying, editing and data storage for each element and its unique characteristics. This modular approach facilitates both backward compatibility and future enhancements.

Page Editor

Referring to Figs. 1 and 2, each web page is presented by a web page editor 2 (Fig. 1) in a layout that matches the final page 4 (Fig. 2). Each element on the page can be modified in the editor.

Live Editor

All text elements (e.g., headline 6, bullets, links, etc.) can be edited in the editor 2. All form images such as buttons to add new elements 8 and

buttons to act on existing elements 10 are live and when clicked result in immediate updates to the page and database.

Page Area

Each web page is divided into areas of page content. As shown in Fig. 1, two areas are defined: navigation bar (navbar) 12 and main content 14. In Fig. 2, sidebar 16 has been added as shown in final page 4. An example of an editing page having a sidebar area 16 is shown in Fig. 3.

Preview Mode

From the page editor, each page can be previewed exactly as it will appear without impacting the live site using the Preview Page button 18.

From the preview of each page, navigation links are to other pages in preview mode rather than to live pages. This allows the editing and preview of an entire site redesign while maintaining a previous version of a live site.

Publish Mode

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Each web page may be, in a single click in the page editor, published to the web site for viewing over the Internet using the Publish Page button 20. The entire site can be published with a Publish Site button.

You Are Here

At the top of each page, there is a header 22 that shows the name of the page and all pages leading from the top level down to this page. (See Fig. 9, header 38, and Fig. 10, header 40, for example.) Each page in this list is a live link to the corresponding page. This header can optionally be hidden on a page by page basis, and does not appear on the home page.

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Action Palette

Each element on a page can be moved up and down the page, centered, spaced relative to the element above it, or deleted. The palette of icons 10, for example, appears beneath each element with each icon representing an available editing function. This action palette is live in that the change forces an update of the page immediately. Action palette icons currently include the following:

• A	dd space	above
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- Remove space above
- Move element up
- Move element down

- Center align
- Left align
- Delete
- Help about

Element Palette

New elements can be added with a single click in the palette of buttons 8 at the bottom of each area of a page in the editor. As with all form images in the page editor, clicking on an image button in the element palette results in an immediate update to the database and editor.

Schemes

Referring to Fig. 4, a set of standard color schemes is available using editing page 23. Each web site can be set to one color scheme, for example. The color scheme can be changed for all web pages on the site with a single click.

Image Upload

Graphics such as image 24 (Fig. 1) can be uploaded to the editor and added to the web page using the image upload editor 25 (Fig.5).

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Meta Editor

For each page, a set of meta data is stored that can be edited readily. A link 26 is shown at the bottom of the navigation bar 12 (Fig. 1) on each web page to click to open the meta editor 27 (Fig. 6). Data added through the meta editor is then used to build each page to improve the results from submissions to major search engines.

Site Data Editor

There is a separate edit form 28 (Fig. 4) for the shared data that will appear on all pages of the site. This data is accessible for editing using the site data link 30 (Fig. 1). The data includes information about the company 32 as displayed in the formatted page 4 (Fig. 2) such as the name of the site, mailing address and contact phone numbers.

Hierarchical Architecture

The entire collection of web pages on a site is arranged in a hierarchical fashion, with the top level pages appearing as a navigation link in the navbar 12 down the left side of each web page. This approach allows for a logical arrangement of related pages and a site map 32, illustrated by the example in Fig. 8, is available for editing as well as for publishing to the live site for enduser navigation. There is no limit to the depth of this hierarchy. Figs. 9 and 10, for example, illustrate a sub-hierarchy within the web site of a People page 34 and a Manager subpage 36 generated using the editing page of the present invention. The "you are here" elements 38 and 40 shown on Figs. 9 and 10, respectively, are automatically generated and displayed as pages are added, as described further below. Accordingly, dynamic links to parent pages from any subpage are available, and are created invisibly to the user.

Site Map

To view the site hierarchy of web pages and to navigate easily to any page in the hierarchy, site map 32 can be displayed both in the page editor and also on the published web site.

5 4. The Application

Figs. 11 and 12 illustrate a preferred embodiment of the edit page 2 of the present invention in block diagram form. Once the edit page function is loaded by the Web browser, a determination is made in processing block 102 as to which page is being edited. The appropriate page data is loaded in processing block 104 along with header 22, navbar 12, and a display area header for the main content area 10 in processing blocks 106, 108, and 110. In decision block 112 a determination is made as to whether this is a top level page, and "you are here" information is displayed as appropriate in processing blocks 114. The elements for edit and the element palette are displayed in processing blocks 116 and 118.

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If the page being displayed is not the home page, as determined in decision block 120, an option is provided in decision block 122 to show the logo in the sidebar area by way of processing block 124, as determined by the show/hide button of processing block 126. For all pages, the sidebar elements and palette are displayed for editing in processing blocks 128 and 130. Buttons to Preview Page 18, Publish Page 20, and Edit Metadata 26 are displayed in processing blocks 132 and 134.

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Referring to Fig. 13, a more detailed diagram is illustrated of processing block 108 for editing the navbar. In processing block 140, the navbar elements are loaded, and for each navbar element at block 142, and decision is made in block 144 of the top level status of the page. Data is loaded along with the name for top level pages in processing blocks 146 and 148. Otherwise, a determination is made in decision block 150 as to whether the navbar element is a URL link, and appropriate link data is loaded and displayed in processing blocks

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152 and 154. If the navbar element is not a URL link, an action palette is displayed in processing block 156. Buttons for adding pages and links are displayed in processing blocks 158 and 160. For all edit data on the edit screen names of posted data contain identification for the element and the type of date for more efficient update.

Referring to Fig. 14, details for adding an element are illustrated for a selected Add operation, such as when the Add Page button or Add Link button is engaged from the navbar. A loop is taken through all of the posted form data in processing block 161. If the key is determined to begin with Add in decision block 162, the process continues to determine if the suffix indicates a logo in decision block 163, in which case the logo is uploaded at processing block 164. Otherwise, an image is identified in decision block 165 and an image upload subroutine is launched at processing block 166. Once the determination has been made that neither a logo nor an image is to be added, the element is recorded and automatically assigned a unique name identifier at processing block 167. Special data records for elements such as links, pages and subpages, and elements with text are added in processing block 168. The unique name identifier and subpage information is utilized by the "you are here" subroutine function of processing block 114 of Fig. 11 to generate auto-navigation of the web site being created, as described further below.

Referring to Fig. 15, further details are shown of processing block 114 of Fig. 11, which displays "you are here" information such as that shown at items 38 and 40 of Figs. 9 and 10.. Page data and element data for the page are loaded in processing blocks 170 and 172. In processing blocks 174 and 176, element and link data for the parent page are loaded. This is repeated until the determination is made that a top level page has been reached in decision block 178, and the generated "you are here" HTML is displayed in processing block 180. See elements 38 and 40 of Figs. 9 and 10, for example.

Referring to Fig. 16, details are shown of processing block 116, which displays the elements for edit. A list of elements for the content area of a page are loaded in processing block 190. For each element in processing block 192, the number of spaces before the element are determined in block 194 and displayed in block 196. Blocks 198 - 206 load template data for the element, display a label for the element, load and display element specific data for edit, and display an action palette.

Referring to Fig. 17, details are shown for displaying an action

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determined in decision block 210, Delete, Up, and Down buttons are displayed in processing block 212. If in the navbar per decision block 214, the need for centering is determined in decision block 216 and appropriate alignment buttons are displayed in processing blocks 218, 220, and 222. The help button is displayed in processing block 224. Each button is named such that "update page" can easily dispatch to the appropriate script or subroutine. An action palette

appears just beneath each element in the page editor.

palette, such as in processing block 206. If the page is not the first page, as

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Referring to Fig. 18, details are shown for displaying an element palette, such as in processing block 118 of Fig. 11. In processing block 230, a list is loaded of templates that can appear in the current content area. For each template in processing control block 232, a button for adding the element is displayed in processing block 234. Certain templates can appear in each content area, so the width of the palette varies with each content area. Each element has a template record that identifies the content areas in which each element can appear.

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Referring to Fig. 19, a block diagram for building web site pages is shown. Color scheme data is loaded in processing block 240. If the page is to be published in decision block 242, date is written to disk in processing block 244. Otherwise, the output is sent to the browser in block 246. The page header is displayed in processing block 248, and the navbar, content area elements, and

sidebar area elements are displayed in blocks 250 - 254. If the decision to publish all is taken in block 256, all pages are published in block 258. Meta data for the page is loaded and displayed in blocks 260 and 262. Each element has unique data to load and a unique appearance.

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Referring to Fig. 20, a block diagram is shown for displaying image element, such as image 24 of Fig. 1. Image specifications, such as the height, width and file name are loaded in processing block 270. Limits for the width of the current content area are loaded in processing block 272. If the image is wider than the limit, as determined in decision block 274, the image is scaled proportionally in processing block 276. The image HTML is displayed in processing block 278.

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Referring to Fig. 21, a block diagram is shown for displaying the site map 32. In processing block 280, a list is loaded of the top level pages. For each page in control block 282, a list of subpages for the page is loaded in block 284, and an indent is added in block 286. For each subpage in block 288, the page is displayed with a link in block 290, and the subpages are shown in block 292. The routine loops through the subpages for each page to the deepest level, showing all pages. Each level is indented from the level above.

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Referring to Fig. 22, various available page update functions are shown in block diagram form. In processing block 300, the page specifications are loaded. The update navbar and update elements functions are provided in blocks 302 and 304. The dispatch function for launching various page functions is provided in block 306. Spacing changes, show/hide elements, align elements, adding elements, adding navbar elements, and moving elements up and down are provided in blocks 308 - 318. The routine returns to the editor in block 320. Each step above relates to a subroutine, such as those described below.

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Referring to Fig. 23, details are shown for the update navbar function of block 302. In block 330, a loop is taken through all posted data, and

if the key starts with "navbar" in decision block 332, the page name is saved to disk.

Referring to Fig. 24, details are shown for the update elements function of block 304. In block 340, a list of elements on the page is loaded. For each element in block 342, a determination is made if the element has text at decision block 344. If so, posted data for the element text is retrieved and saved at blocks 346 and 348. Special data for the element is detected at decision block 350. Special data is posted and saved in processing blocks 352 and 354. Special data can include, for example, links, pages and subpages, elements with text, shopping cart items, etc.

Referring to Fig. 25, details are shown for the dispatch function of block 306. In processing block 360, a loop is made through the posted data, and decisions are made in blocks 361, 364, 368, 372, and 376 as to whether the data key starts with edit, publish, preview, go, or delete, respectively. Based on the determination made, an appropriate routine is called to launch, for example, the page editor 362, build page in publishing mode 366, build page in preview mode 370, run a specified script 374, or a delete element subroutine 378.

Other subroutines are called from the update page processing blocks shown in Fig. 25 to execute the functions shown. For example, to add an element, the subroutine loops through the posted form data, and if the key starts with "Add", and the suffix is "logo," an upload logo subroutine is launched. If the suffix is "image," the image subroutine of Fig. 20 is launched. Otherwise, the element record is added, along with special element data as needed.

Similarly, a subroutine is provided to move elements up or down by resorting the list of elements with the selected element moved accordingly. Spacing between elements is executed by a subroutine to add or delete line spaces before an element. Elements can be selectively shown or hidden by calling the subroutine using a key starting with "hide" or "show" and setting the element as hidden or visible. Elements can be aligned center or left, for example, by

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selecting the appropriate key. Similarly, deleting elements is made possible by an appropriate subroutine that preferably prompts the user to be sure that a delete function was intended. If subpages are involved in the delete, the subroutine would loop to delete all lower related subpages.

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Although the present invention has been described in relation to particular embodiments thereof, many other variations and modifications and other uses will become apparent to those skilled in the art. It is preferred, therefore, that the present invention be limited not by the specific disclosure herein, but only by the appended claims.

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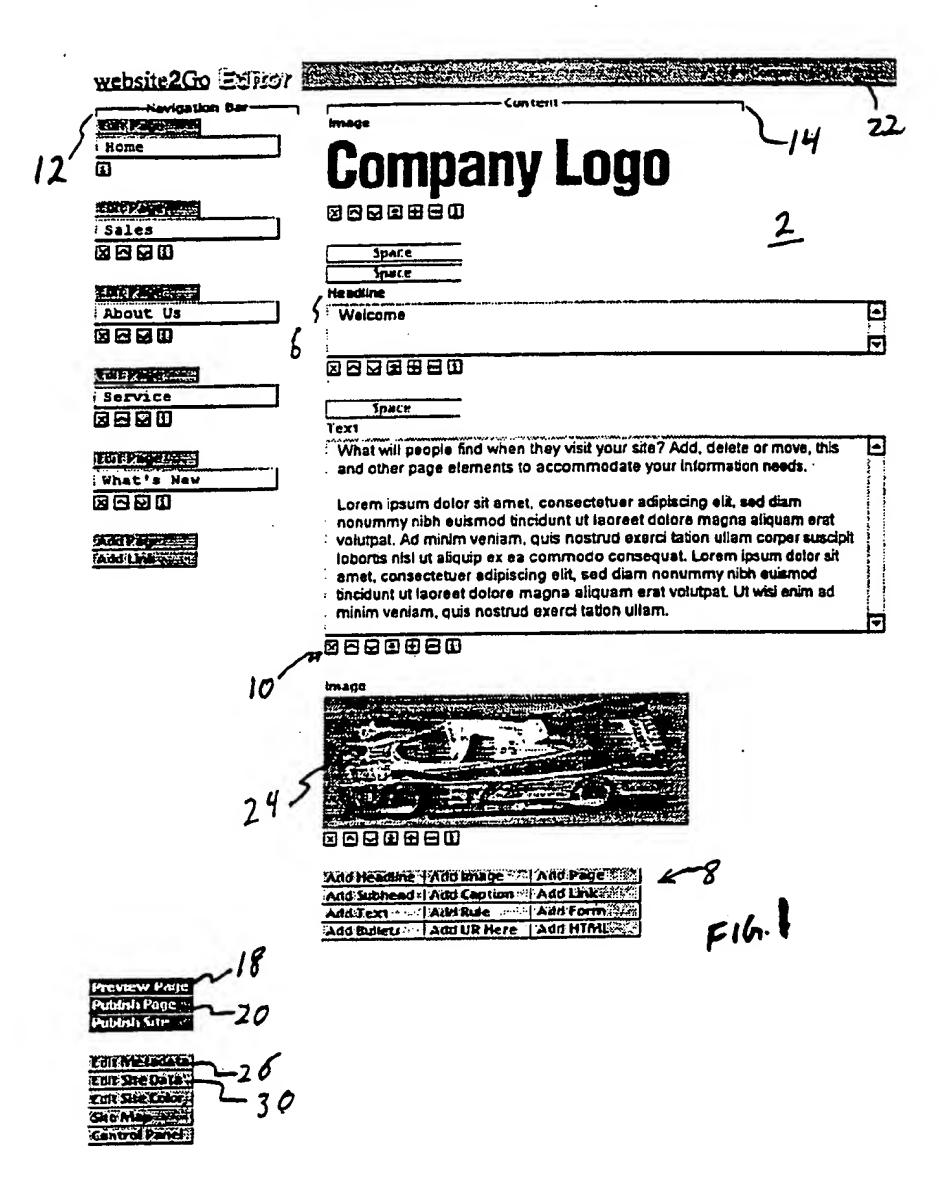
WHAT IS CLAIMED IS:

- 1. A web site development software program for use by a user comprising a database containing pre-defined templates for each type of element that can be added to web pages of the web site by the user, the database being accessible by a network server accessible over the Internet, the template being presented to the user over the Internet using a browser, the template having content areas, and an editing system for viewing the templates and adding elements, the system defining a unique name identifier for each added element, wherein the content areas can contain each type of element, the template being modified by the user using the editing system and subsequently being stored in modified form by the user for public access over the Internet.
- 2. The web site development software program of claim 1, wherein each web page is divided into areas of page content.
- 3. The web site development software program of claim 2, wherein the areas of page content include a navbar, a main content, and a sidebar.
- 4. The web site development software program of claim 1, wherein locations of elements in content areas viewed by the user using the editing system are identical to the locations of the elements stored in modified form by the user and publicly accessed over the Internet.
- 5. The web site development software program of claim 1, wherein page elements added to the web site using the editing system by the user are provided with an identifier generated by the editing system, related pages are tracked by the editing system, and an element is generated by the system for each page displaying links to the related pages.

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- 6. The web site development software program of claim 1, furth. comprising action palettes displayed on the templates, the action palettes comprising user selectable buttons for editing the templates using the editing system.
- 7. A computer-readable medium having stored thereon a plurality of sequences of instructions comprising instructions causing a computer processor to perform the steps of accessing a database containing pre-defined templates for each type of element that can be added to pages of a web site by a user, the database being accessed over the Internet by a network server, presenting the templates to the user using a browser, the template having content areas and defining a unique name for each added element and a unique identifier for each added element, wherein the content areas can contain each type of element, accepting modifications to the templates by user, and subsequently storing the templates in modified form for public access over the Internet.
- 8. A computer-implemented method for development of a web site comprising the steps of accessing a database containing pre-defined templates for each type of element that can be added to pages of a web site by a user, the database being accessed over the Internet by a server, presenting the templates to the user using a browser, the template having content areas and defining a unique name for each added element and a unique identifier for each added element, wherein the content areas can contain each type of element, accepting modifications to the templates by user, and subsequently storing the templates in modified form for public access over the Internet.
- 9. The computer-implemented method for development of a web site of claim 8, including the step of logging into a web site development service to access the database containing pre-defined templates.

10. The computer-implemented method for development of a web site by a user of claim 8, wherein the location of elements contained in a template and the modified form of the template are identical.



CONTENTS

- ► Home
- P Bates
- ► About Us
- ► Service
- ► Whata New

Company Name 123 Main Street Yourtown, NY 23456 USA (212) 555-4321 (212) 555-1234 fax

Send Us 🔯 E-mail

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5

Company Logo Highlinews

Welcome ~ 6

What will people find when they visit your site? Add, delete or move, this and other page elements to accommodate your information needs.

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Highlight hot news items or newly added pages here.

 Latest product ships) Find out where it's being sold.

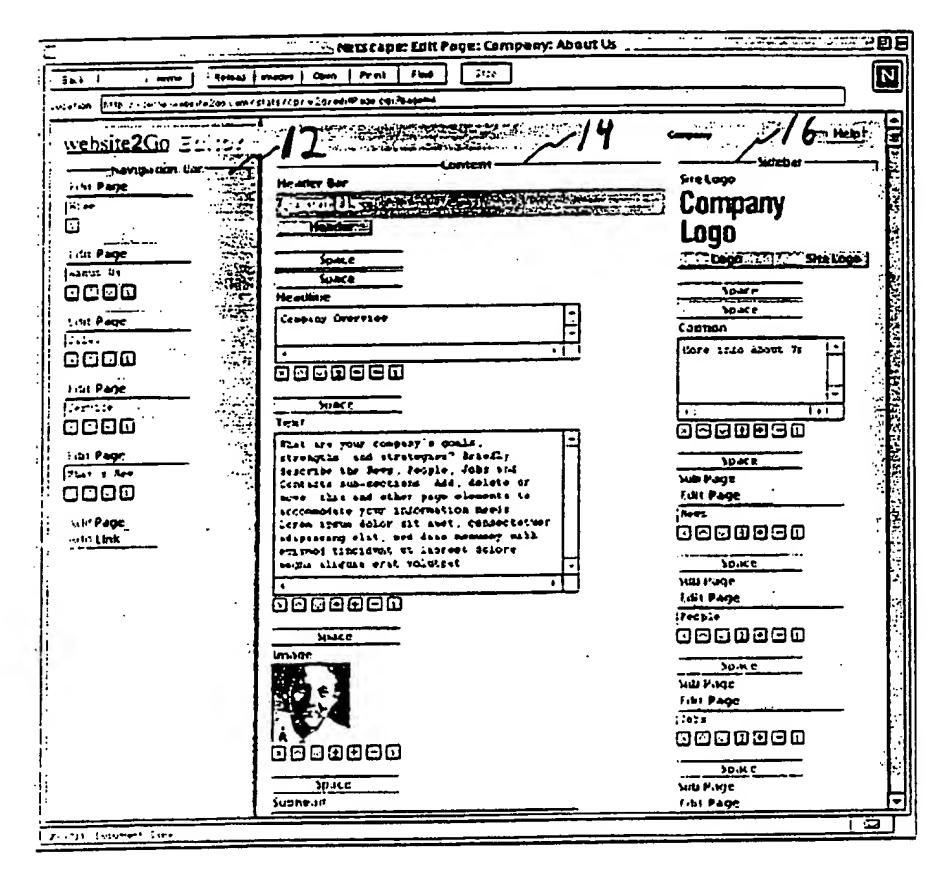
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website 2Go

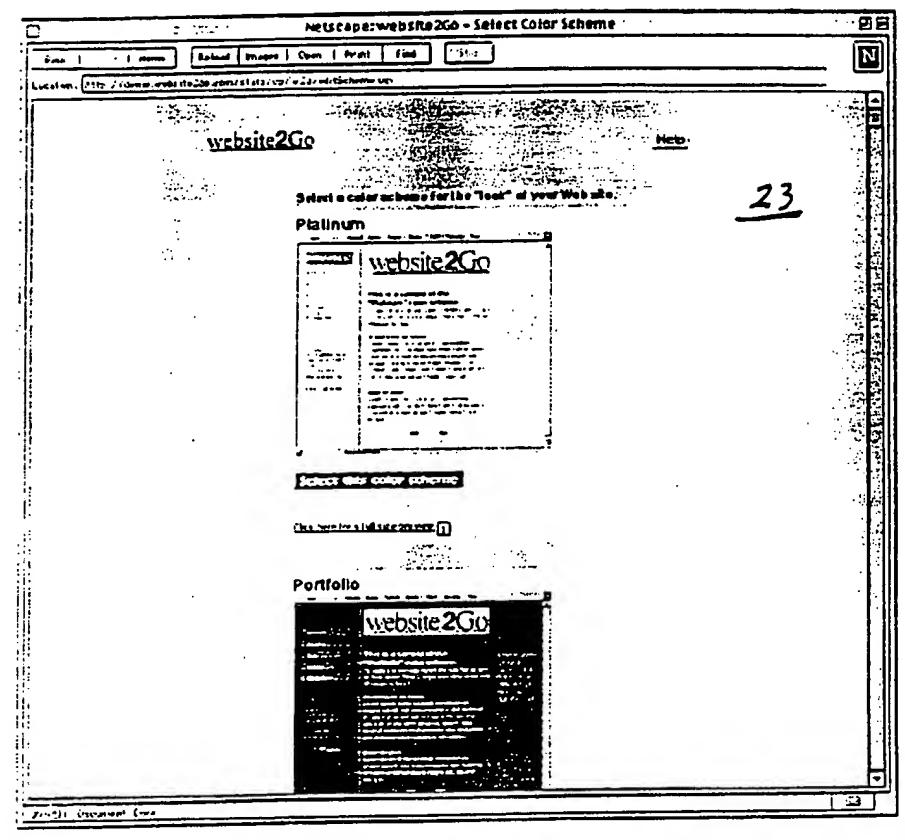
16

4

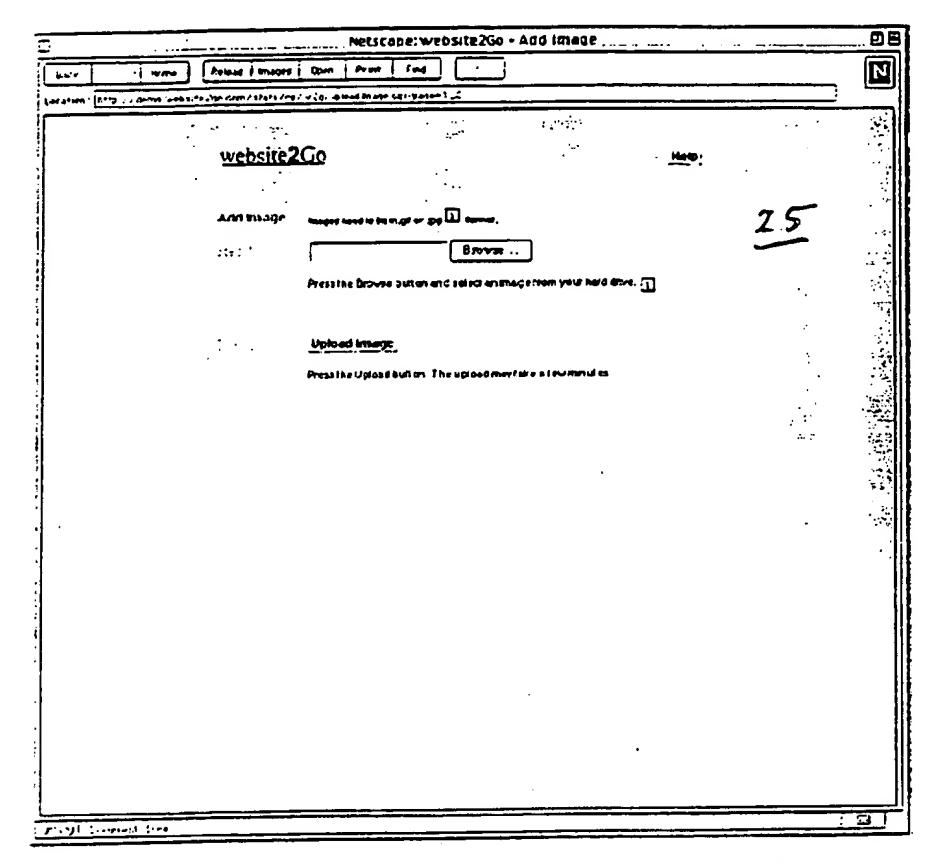
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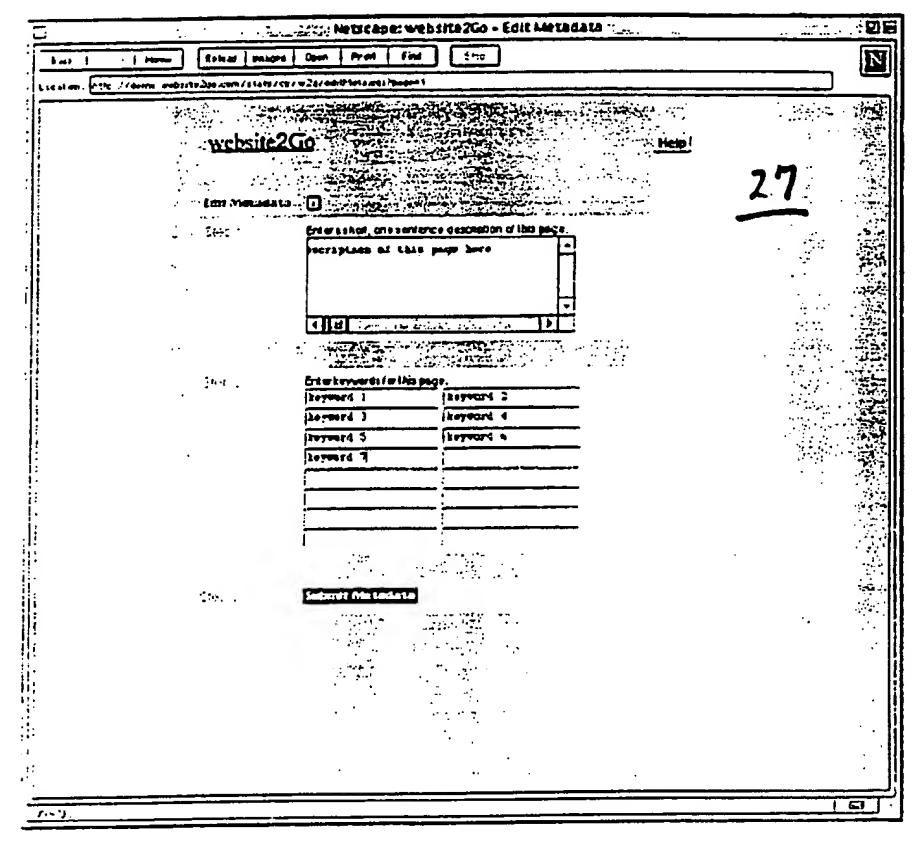
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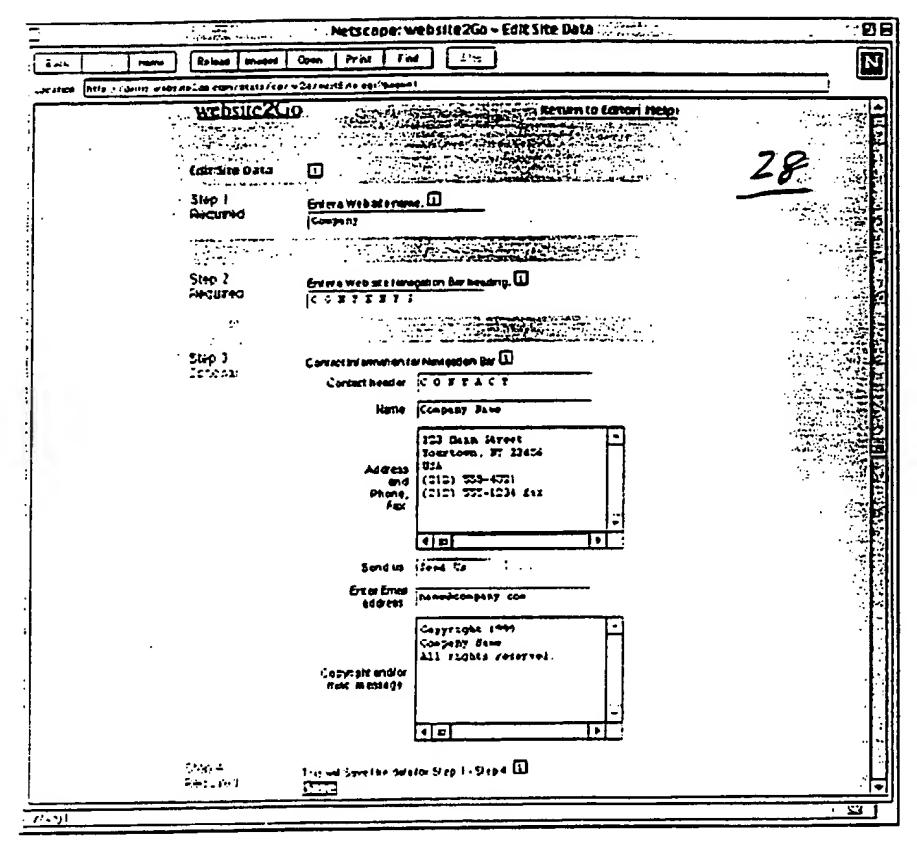
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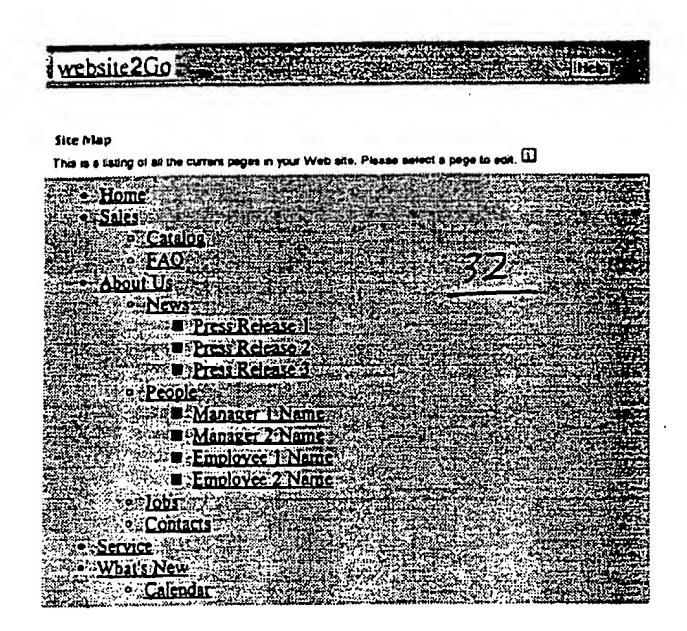
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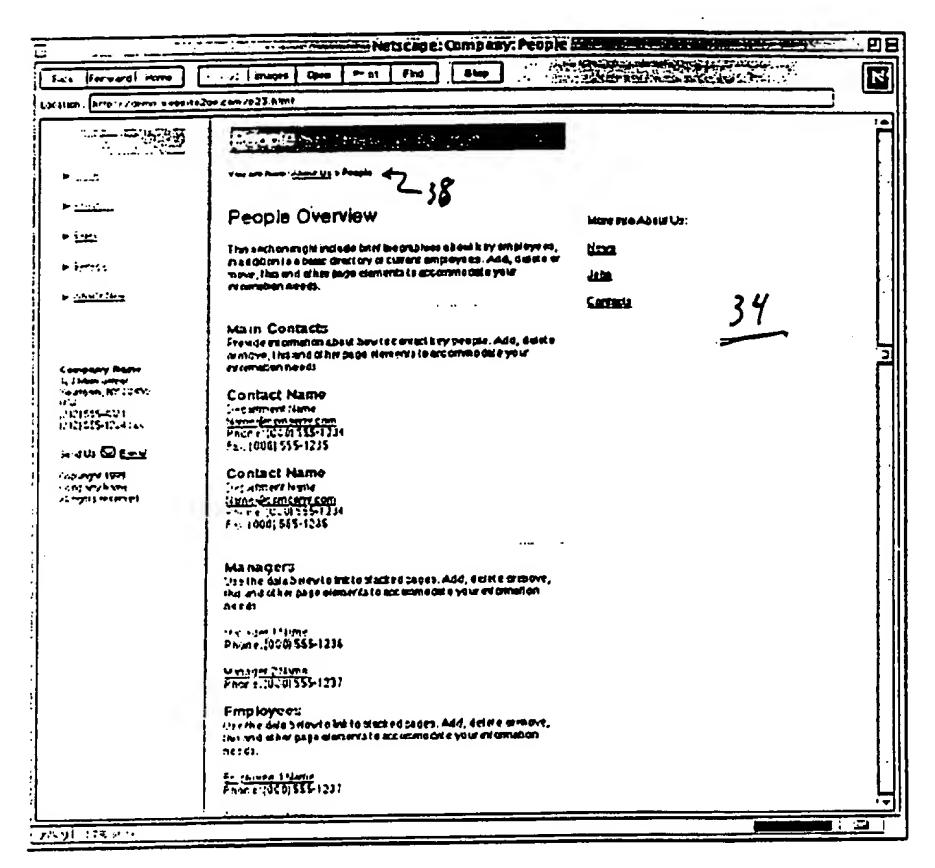
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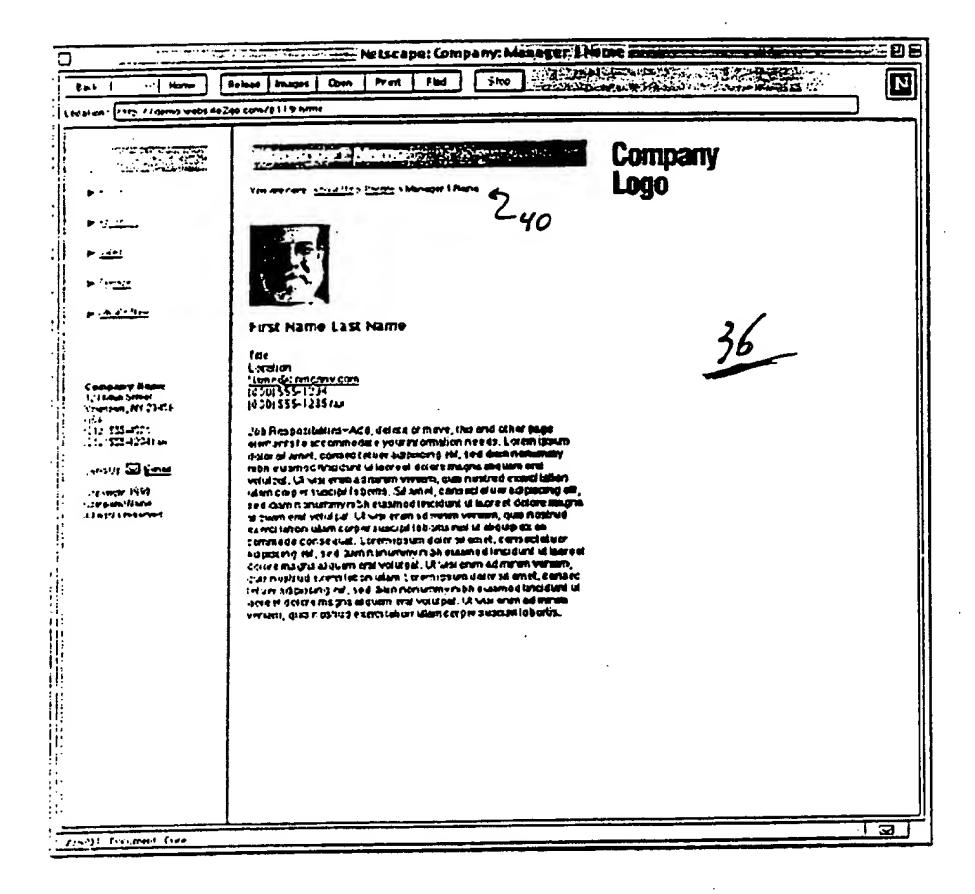
F16.7



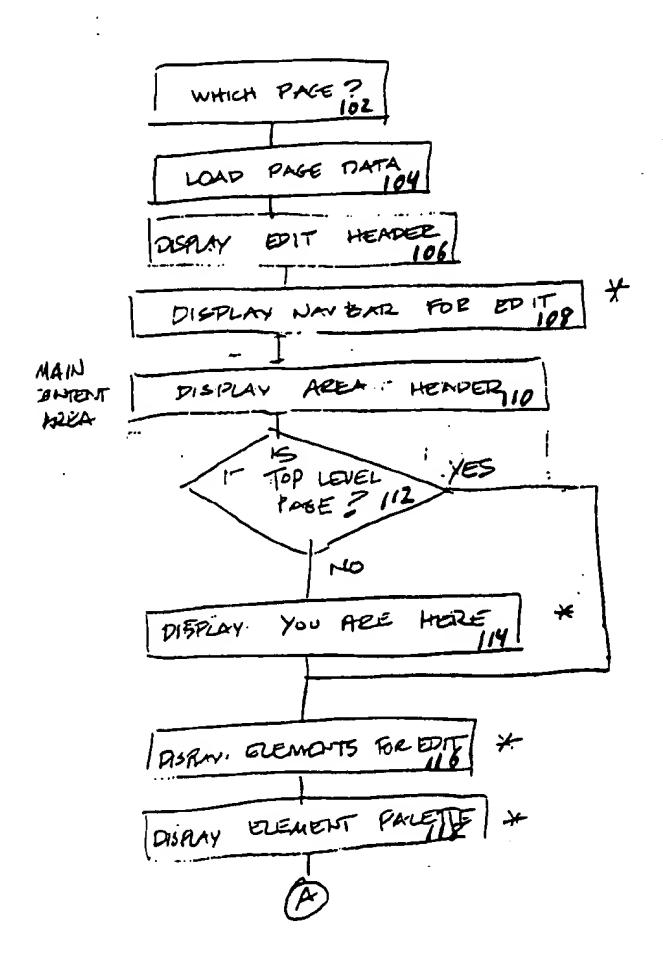
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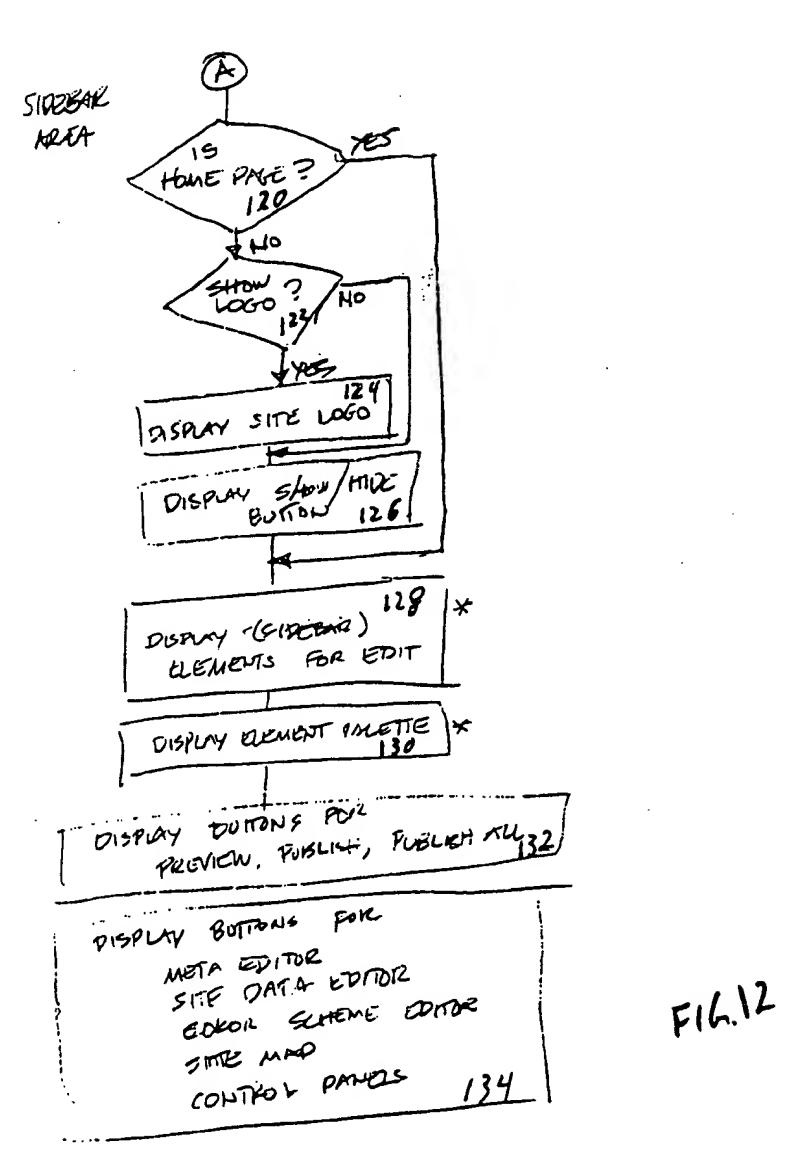
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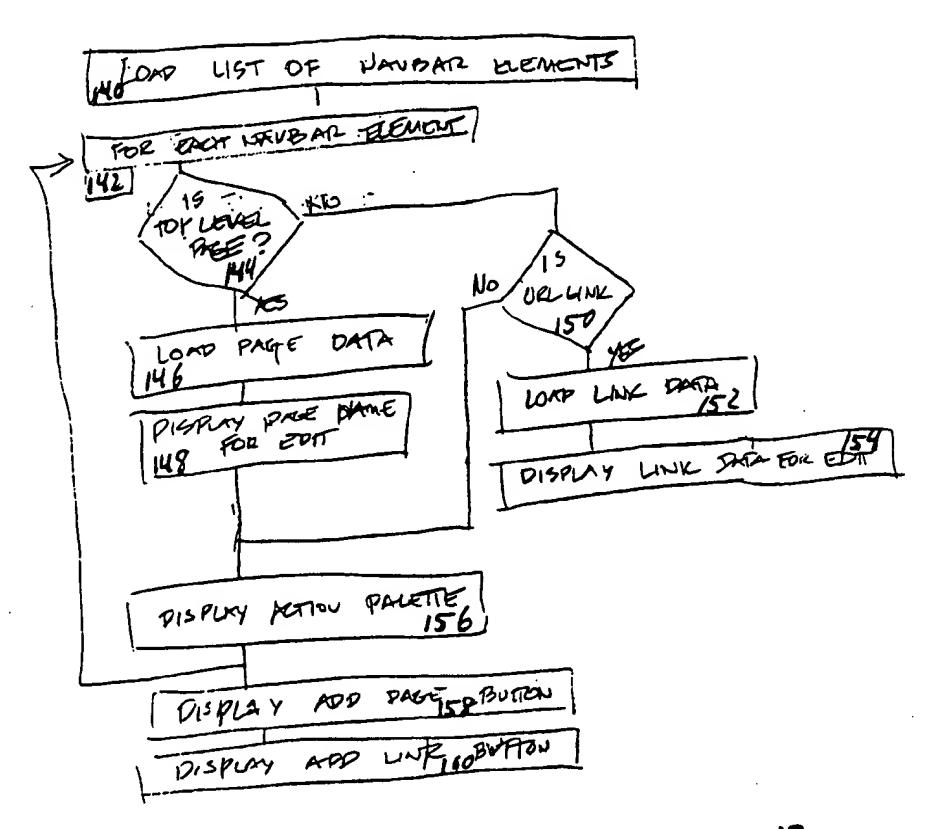
F16.10



F16.11

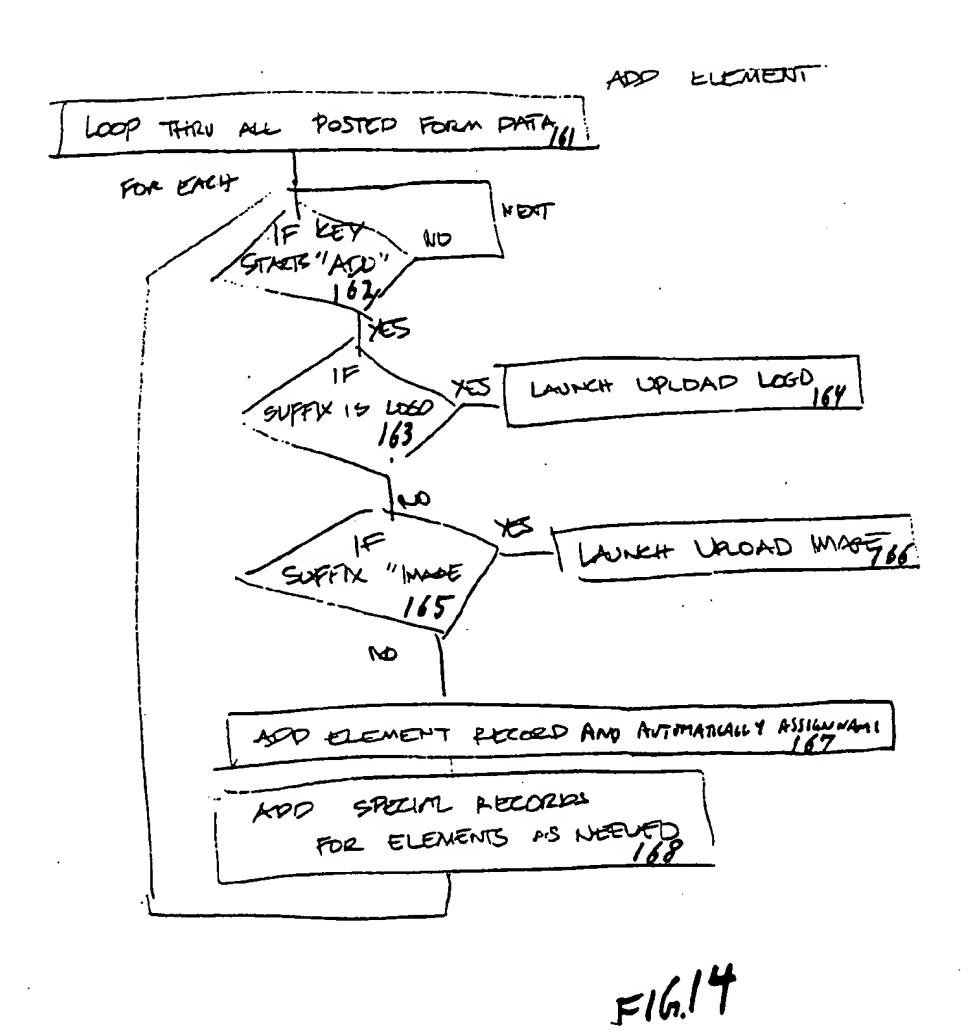


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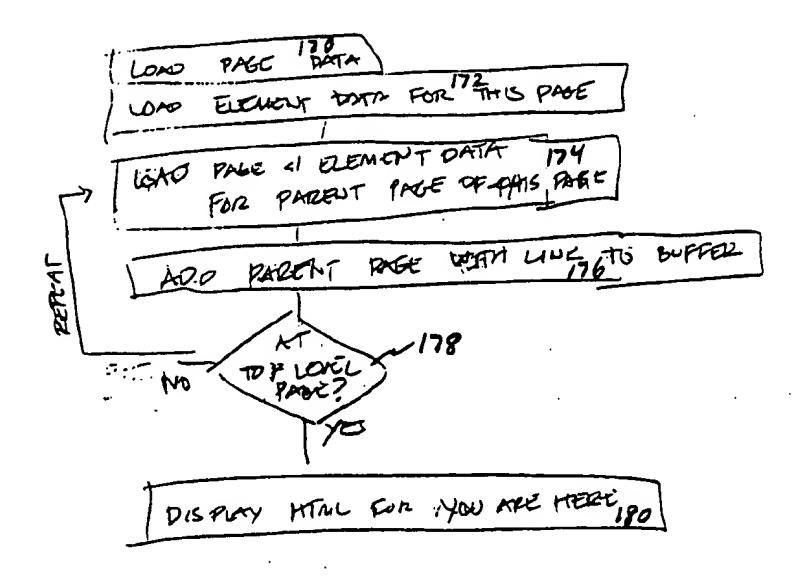


F16.13

FOR ALL EDIT DATA ON EDIT SCREEN, NAMES OF POSTED DATE
CONTAIN ID FOR ELEMENT, TYPE OF PATA. THESE MAKE
UPPEARE MORE EXPICIENT.



SPECIAL DATA CUERRATLY FOR LINES
DAGGE /SIBPRES
ELEMENTS W/ TEXT

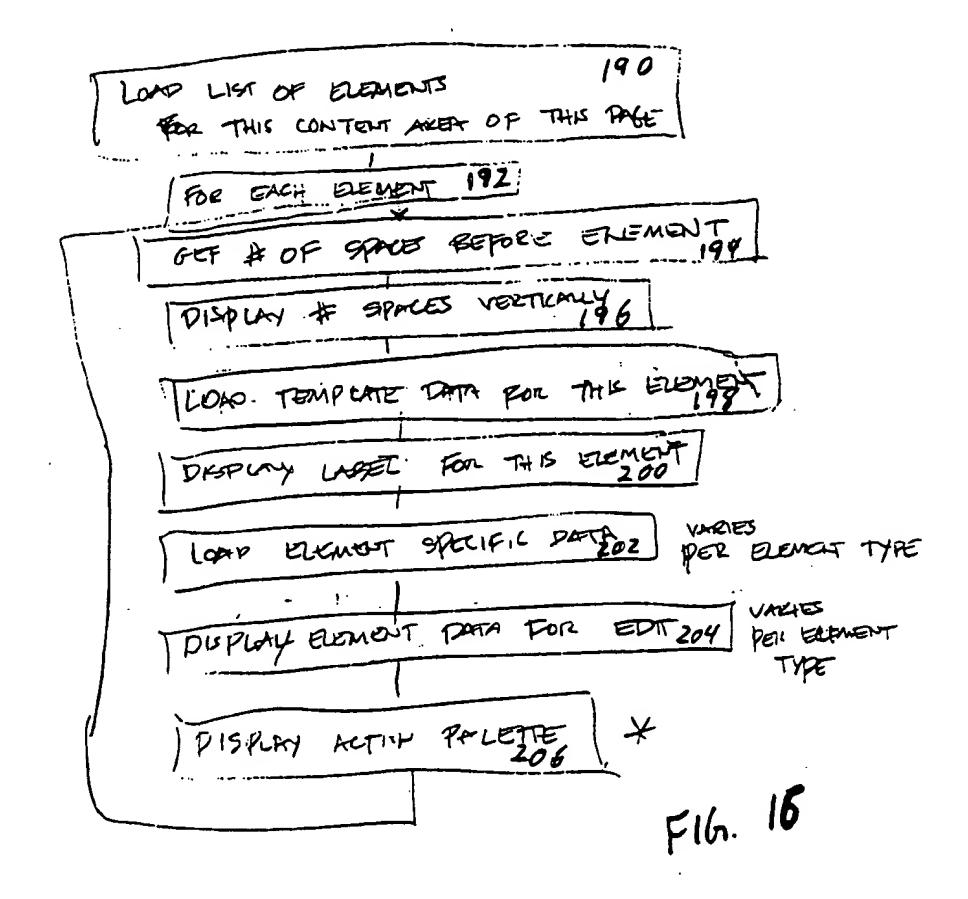


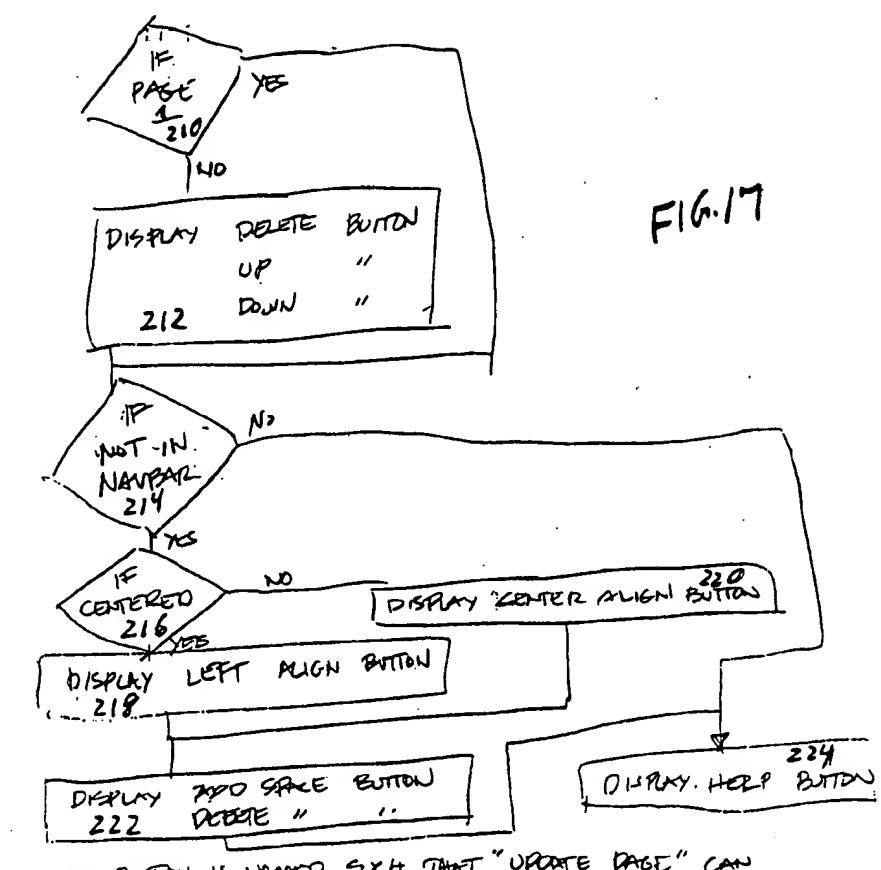
F16.15

PANDAR / TOP LENG 1990 WHICH IT SITS

SUB PACES SIT ON A PASE

NAMBAR / TOP LENG 1990 SIT ON PAGE ZERO (110HE)



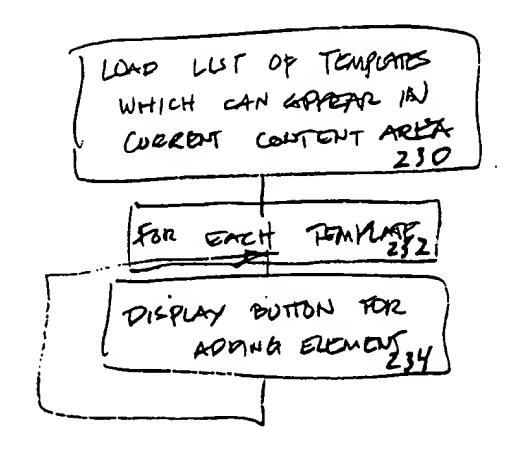


_ EXCH BUTTON IS HOMEO SICH THAT "UPDOTE DAGE" CAN

LOT EXCILY DISPATCH TO THE APPROPRIATE SCRIFT

OR SUBPOUTINE "" NAME "UP - MEET _ ELEMENT"

- ACTION PALOTE APPROVES JUST BENEATH EACH BUCKENT

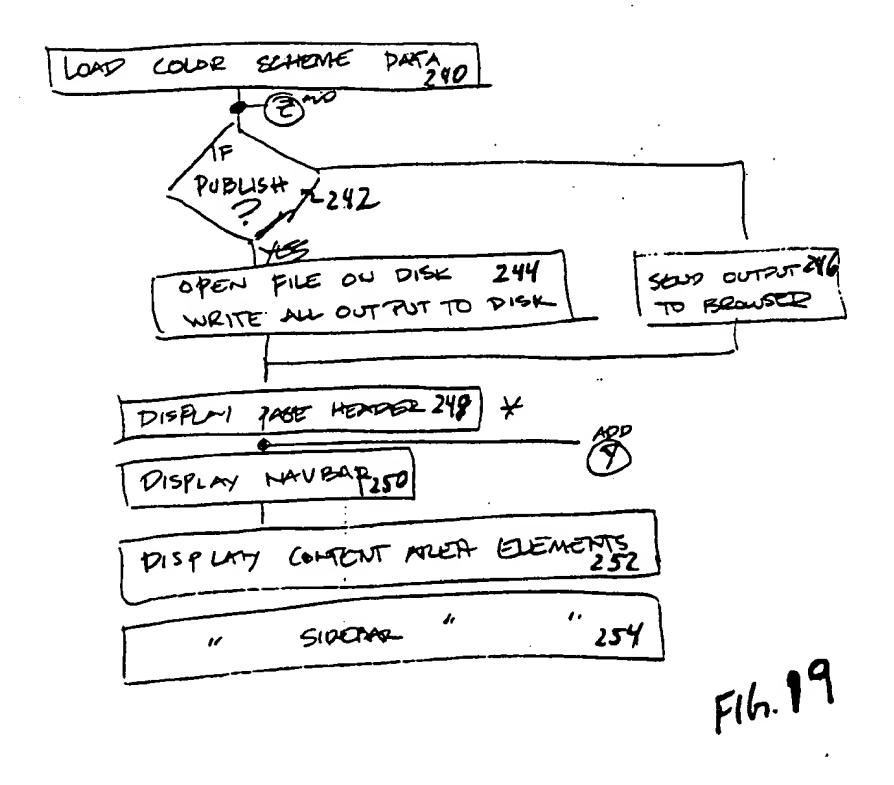


notes width of politic varies with content area

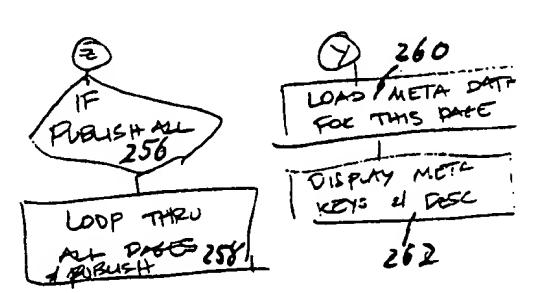
F16.18

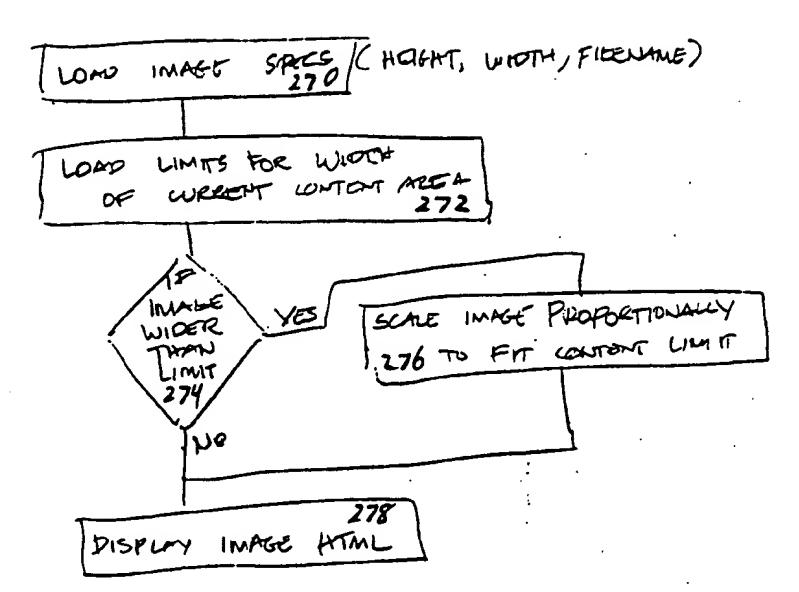
- Each element has a template record.

this record identifies which content areas each
element. way or may not be added to lappear in.



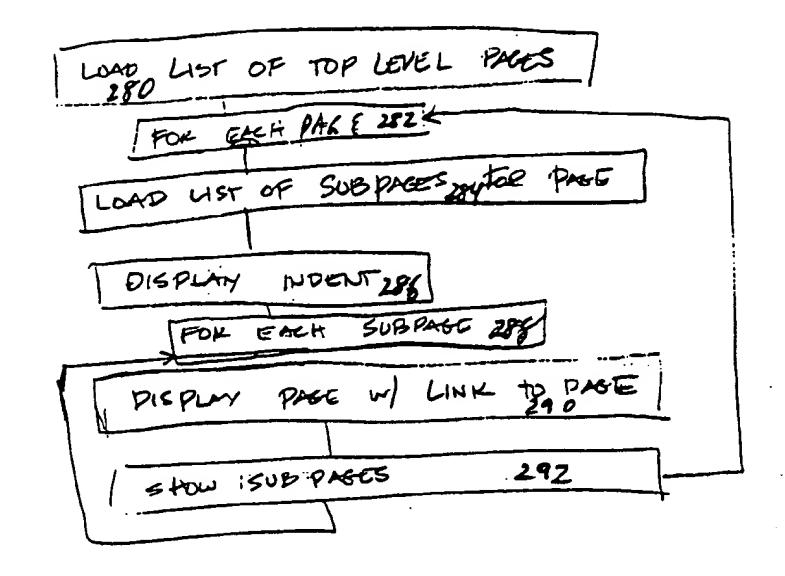
NOTE: EACH DEDUCKT HAS UNIQUE DARF TO LOAD 4 UNIQUE APPENDANCE





F16.20

- EACH CONTENT KEER HAR A WIDTH LIMIT

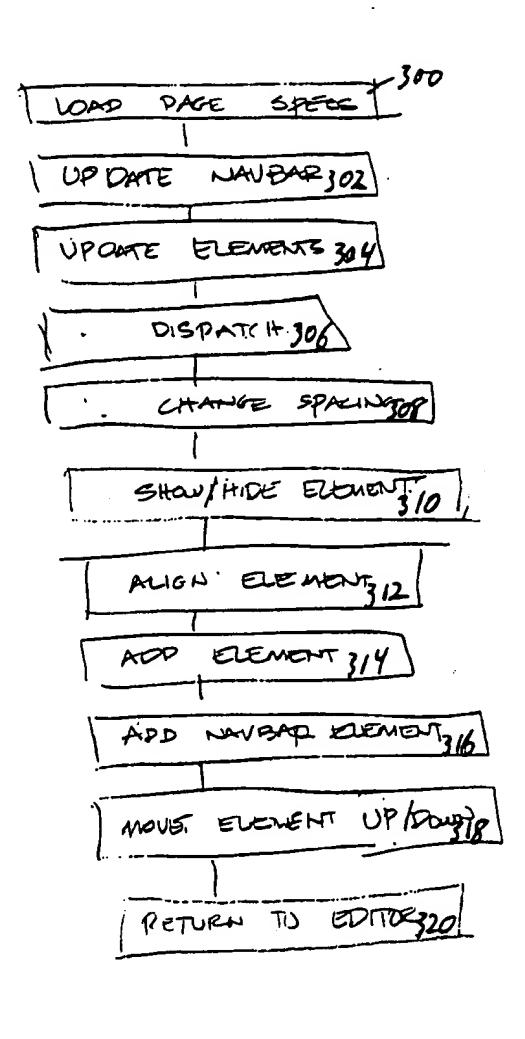


F16. 21

LOOPS THRU SUBDACES FOR EACH DAGE.

TO DEEDPET LEVEL, SHOWING ALL DAGES.

- EACH LEVEL IS INDEPTED FROM LEVEL ATBONE



F16.22

- EACH STEP HERE IS SUBROUTINE,
- OTHER THAN UPDATE OF TEXT, ONLY ONE ACTION IS ASSEMBLLY (ALLED FOR.

